

Number Lines Lesson 4

Compound Inequalities

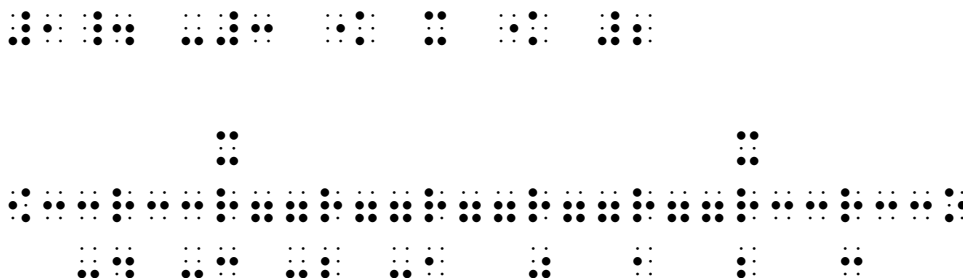
Graphing Activity Answer Key

Graph each compound inequality on a new number line. Number your answers and include the original problem. [There is a braille answer document "L4-NL-Activity-A-Answers.brf" that can be used to independently check answers.]

1. Negative 3 is less than x is less than 2.

$$-3 < x < 2$$

Answer:

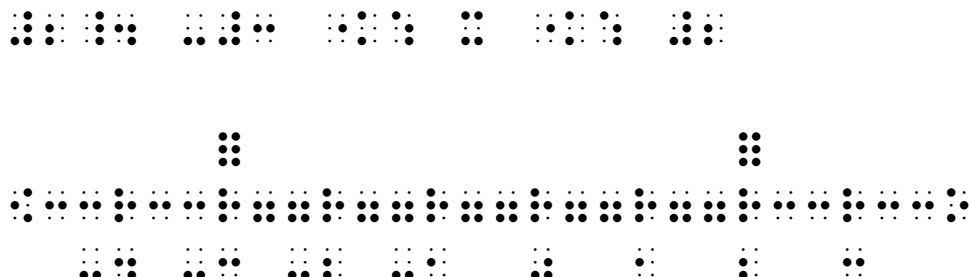


A braille number line is shown. The scale marks are in increments of 1 starting with -4 and ending with 3. An open circle is placed above the scale marks at -3 and 2. Shading goes from just to the right of -3 to just to the left of 2.

2. Negative 3 is less than or equal to x is less than or equal to 2.

$$-3 \leq x \leq 2$$

Answer:

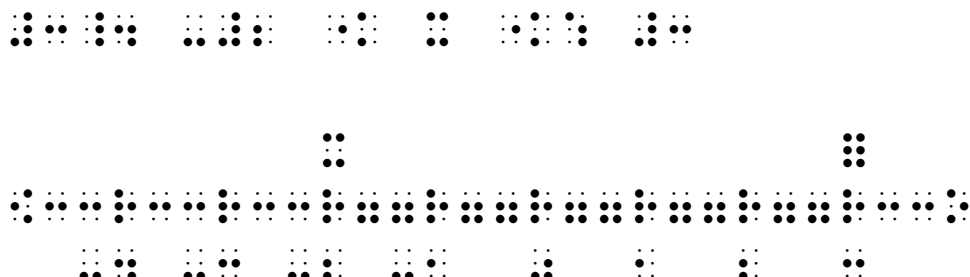


A braille number line is shown. The scale marks are in increments of 1 starting with -4 and ending with 3. A closed circle is placed above the scale marks at -3 and 2. Shading goes from just to the right of -3 to just to the left of 2.

3. Negative 2 is less than x is less than or equal to 3.

$$-2 < x \leq 3$$

Answer:

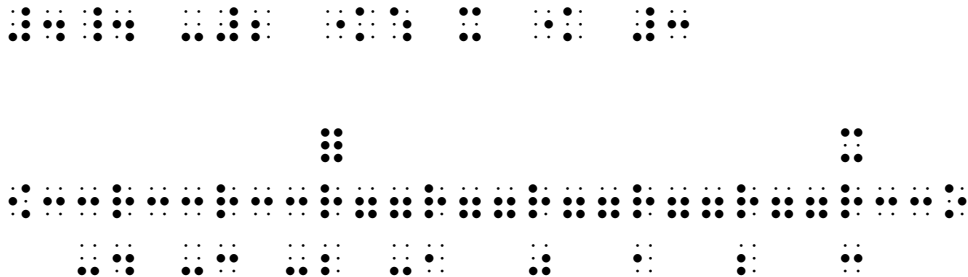


A braille number line is shown. The scale marks are in increments of 1 starting with -4 and ending with 3. An open circle is placed above the scale mark at -2 and a closed circle is placed above the scale mark at 3. Shading goes from just to the right of -2 to just to the left of 3.

4. Negative 2 is less than or equal to x is less than 3.

$$-2 \leq x < 3$$

Answer:

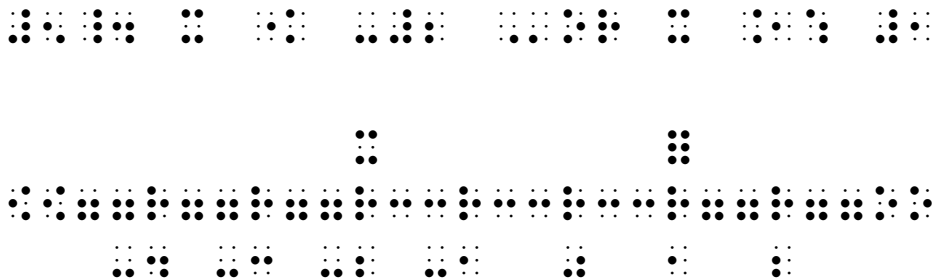


A braille number line is shown. The scale marks are in increments of 1 starting with -4 and ending with 3. A closed circle is placed above the scale mark at -2 and an open circle is placed above the scale mark at 3. Shading goes from just to the right of -2 to just to the left of 3.

5. x is less than negative 2 or x is greater than or equal to 1.

$$x < -2 \text{ or } x \geq 1$$

Answer:

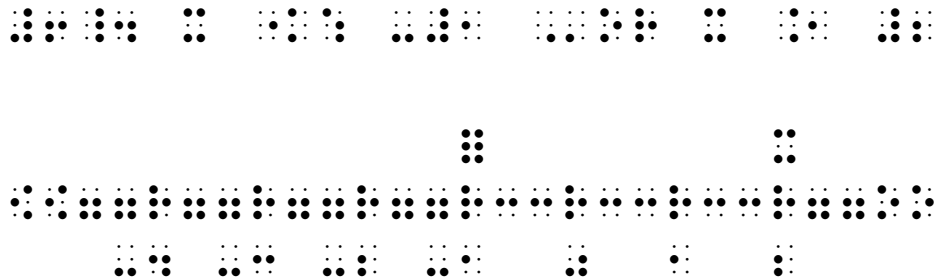


A braille number line is shown. The scale marks are in increments of 1 starting with -4 and ending with 2. An open circle is placed above the scale mark at -2 and a closed circle is placed above the scale mark at 1. An additional left-pointing arrowhead and an additional right-pointing arrowhead are added. Shading goes left of -2 and right of 1 not including the arrowheads.

6. x is less than or equal to negative 1 or x is greater than 2.

$$x \leq -1 \text{ or } x > 2$$

Answer:



A braille number line is shown. The scale marks are in increments of 1 starting with -4 and ending with 2. A closed circle is placed above the scale mark at -1 and an open circle is placed above the scale mark at 2. An additional left-pointing arrowhead and an additional right-pointing arrowhead are added. Shading goes left of -1 and right of 2 not including the arrowheads.